

Title (en)
LIGAND SCREENING AND DESIGN BY X-RAY CRYSTALLOGRAPHY

Title (de)
SCREENING NACH BINDEPARTNERN UND DEREN DESIGN DURCH RÖNTGENKRISTALLOGRAPHIE

Title (fr)
CRIBLAGE ET ELABORATION DE LIGANDS PAR CRISTALLOGRAPHIE AUX RAYONS X

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Abstract (en)
[origin: WO9945379A2] X-ray crystallography can be used to screen compounds that are not known ligands of a target biomolecule for their ability to bind the target biomolecule. The method includes obtaining a crystal of a target biomolecule; exposing the target biomolecule crystal to one or more test samples; and obtaining an X-ray crystal diffraction pattern to determine whether a ligand/receptor complex is formed. The target is exposed to the test samples by either co-crystallizing a biomolecule in the presence of one or more test samples or soaking the biomolecule crystal in a solution of one or more test samples. In another embodiment, structural information from ligand/receptor complexes are used to design ligands that bind tighter, that bind more specifically, that have better biological activity or that have better safety profile. A further embodiment of the invention comprises identifying or designing biologically-active moieties by the instant process. In a further embodiment, a biomolecule crystal having an easily accessible active site is formed by co-crystallizing the biomolecule with a degradable ligand and degrading the ligand.

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Citation (examination)
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